**Postgraduates Programme Report**

**A- Basic Information**

**Programme title: Doctorate (MD) in medical physiology.**

**Programme type:** Single Double Multiple

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**Departments:** Medical physiology department

**Coordinator:** Prof/ Dalia I. AbdAlaleem

**External evaluator:** Prof Dr. Amany El Baz (Professor of physiology – Suez canal university)

**Year of operation: 2020**

**B- Statistic**

**1-** No. of students starting the programme: **Three**

2- Ratio of students attending the programme this year to those of last year**: 3:2**

3- No. and percentage of students passing in each year **100%**

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| **Year of study** | **Percent of successful students** | **of failed**  **students** |
| 2020 | 100% | 0% |
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**4- No. of students completing the programme and as a percentage of those who started: 100%**

**5- Grading: No. and percentage in each grade: 100% passed**

**6-First destinations of graduates**

**Percentages of the graduating cohort who have**

i. Proceeded to appropriate employment: (promoted to higher degree)100%

ii Proceeded to other employment:

iii Undertaken postgraduate study:

iv. Engaged in other types of activity:

v. Unknown first destination:

**C- Professional Information**

***Academic Standards***

**3a.** Generic standards of postgraduate programmes prepared by National Authority of Quality Assurance and Accreditation of Education (NAQAAE).

**المعاييرالقياسية العامة لبرامج الدراسات العليا التي أعدتها الهيئة القومية لضمان جودة التعليم والاعتماد (2009)** **فبراير**

**3b.** External reference (Benchmark) (attached): Doctorate degree in Doctoral Program in medical physiology Programme of Michigan State University

**3c**. Matrices:

1. Comparison between the intended learning outcomes (ILOs) of the Faculty of Medicine Zagazig university MD in medical physiology programme and that of the Generic Academic standards of postgraduate programme prepared by National Authority of Quality Assurance and Accreditation of Education.
2. **Achievement of programme intended learning outcomes ILOs:**

**By the end of the MD programme in medical physiology the candidate became able to:**

**A- Knowledge and Understanding**

KU01- Identify cell adhesion molecules and intercellular communication.

KU02- Outline molecular structure of the Genes and regulation of its expression.

KU.03- Discuss G protein types and functions and explain types of 2nd messengers .

KU.04- Summarize the neurotrophins.

KU.05- Discuss regulatory proteins of different types of muscles and molecular details of muscle contractions.

KU.06- Explain cardiac cycle and identify pressure, volumes and electrocardiogram (ECG) changes of every stage.

KU.07- Discuss cardiac output regulation.

KU.08- Discuss pathophysiology of heart failure.

KU.09- Outline types of arrhythmia and its impact on electrocardiogram (ECG).

KU.10- Discuss microcirculation and the role of capillary permeability in physiological equilibrium.

KU.11- Describe flow and resistance in vascular system and new mediators regulate the diameters of vessels.

KU.12 Summarize different types of special circulations and its regulations

KU.13- Discuss Immunity classification, mechanisms and abnormalities

KU.14- Discuss cytokines and other immunity regulating molecules.

KU.15- Explain - the physiological base of tissue and organ transplantation

**B: Intellectual Skills**

IS.1 Integrate facts about function of different organs subserving the homeostasis.

IS.2 Solve medical problems related to diagnosis & treatment of physiological problems as:, disturbance of osmolarity, electrolyte balance, PH, etc….

IS.3 Observe scientific phenomena during the practical study.

IS.4 Integrate facts about function of different hormones affecting calcium homeostasis.

IS.5 Interpret Electroencephalogrm (EEG).

IS.6 abnormal Electrocardiogram.

IS.7 Interpret Electrocardiogram and Respiratory function during exercise.

**Professional/practical skills**

P.S.01- Record of simple muscle twitch.

PS.02-Record of Nerve& muscle electricity using the oscillograph.

P.S.03- Record arterial blood pressure (ABP) and electrocardiogram (ECG) in experimental animals .

P.S.04- Record cardiac contractility in vivo in experimental animals.

P.S.05- Demonstrate the effect of different drugs on contractility of isolated heart.

P.S.06- Demonstrate the effect of different drugs on contractility of isolated vascular beds

P.S.07-Perform Pulmonary function tests

P.S.08- Demonstrate the effect of different drugs on gastro intestinal tract (GIT) motility in isolated strips.

P.S.09- Demonstrate the effect of different drugs on contractility of the trachea.

P.S.10- Demonstrate the effect of different drugs on contractility of the uterus.

P.S.11- Demonstrate the effect of different drugs on contractility of the urinary bladder.

P.S. 12-Perform hormonal assay.

P.S.13- Measure bone length and density in animals.

P.S.14- Measure pH via pH meter.

P.S0 15- Record Electrocardiogram and Respiratory functions during exercise.

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**D- General &Transferable skills**

GS1- Communicate efficiently, sensitively and clearly with colleagues.

GS2- Communicate efficiently, respectively and clearly with supervisors

GS3- Be prepared for life long learning

GS4- Use information and communication technology

GS5- Present information clearly in written, electronic and oral formats

GS6- Communicate ideas and arguments effectively

GS7- Work effectively with a team.

GS8-Teach and Evaluate others.

**Achievement of programme aims:**

**At the end of this course the candidate became able to build the competencies** in the fields clinical and experimental phsiology including different body systems with the goal of preparing researchers in some specialized fields including receptor mapping and cloning, gene therapy, alternative medicine, cell culture use in pharmacology, molecular pharmacology and neuropharmacology. In addition, the candidate had a wide vision about development of new methods and tools to analyze and criticize any research scientifically, and to use different technological methods which add to his/her Professional applications.

**10.** Progress of previous year’s action plan

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| --- | --- | --- | --- | --- |
| **Action** | **Man in charge** | **Time** | **Actual achievement** | **Reason for delay and Solution** |
| **Make an official**  **Facebook page**  **For postgraduate**  **Students** | **Staff members** | **2019-2020** | **80 % achieved** |  |

**11. Action plan**

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| **Actions required** | **Time from to** | **Person responsible** |
| **Special units for** |  |  |
| **Postgraduate and** | **2020-2022** | **Staff members** |
| **Central lab** |  |  |
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**Program Coordinator** **:- Prof/ Dalia I. AbdAlaleem**